EA Form R 1/2007

Montana Department of Natural Resources and Conservation
Water Resources Division
Water Rights Bureau

ENVIRONMENTAL ASSESSMENT
For Routine Actions with Limited Environmental Impact

Part I. Proposed Action Description

1. Applicant/Contact name and address:

Emerald Heights HOA County Water Sewer District
PO Box 534
Whitefish, MT 59937

2. **Type of action:** Groundwater Application for Beneficial Water Use Permit 76LJ 30147453

3. **Water source name:** Groundwater

4. **Location affected by project:** NESE of Section 12, Township 30N, Range 22W, Flathead County, Montana. The Emerald Heights subdivision.

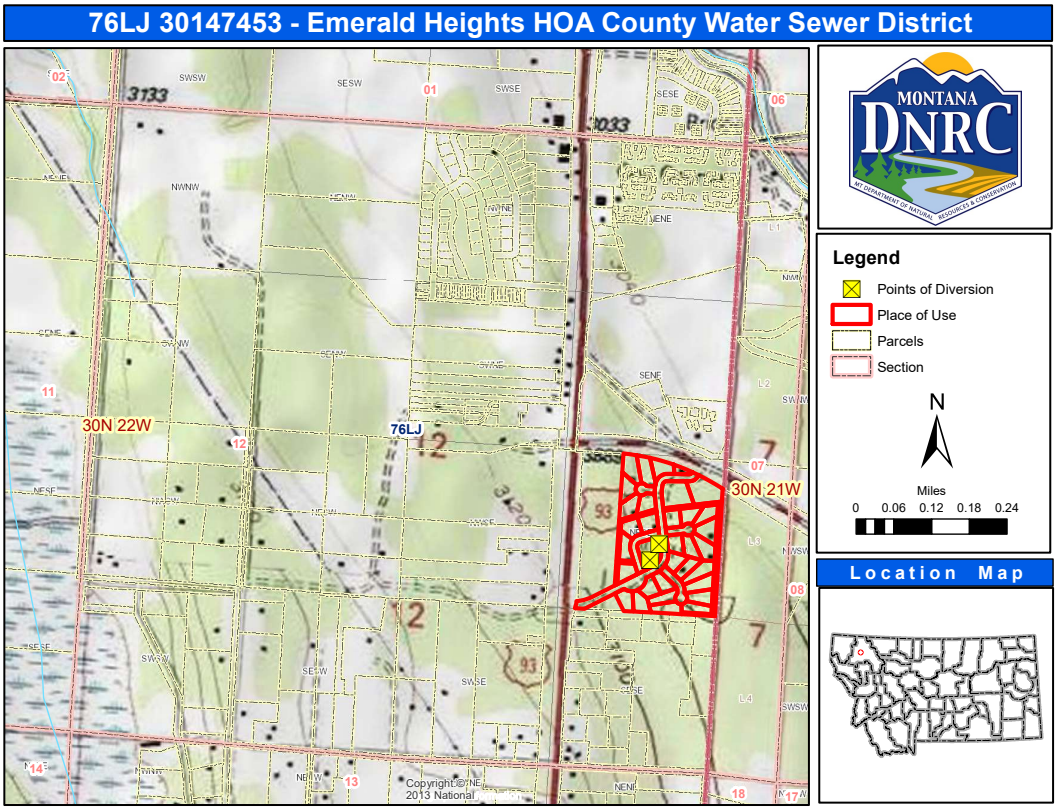

Figure 1. Map of the proposed place of use and point of diversion.

5. Narrative summary of the proposed project, purpose, action to be taken, and benefits:

The Applicant proposes to divert water from the Flathead Deep Aquifer to supply the Emerald Heights subdivision, by means of two wells, from January 1 – December 31 at a rate of 43.5 gallons per minute (GPM) up to 24.8 acre-feet (AF), for Multiple Domestic use (31 single-family residences) from January 1 – December 31, and Lawn and Garden Irrigation use (6.2 acres) from April 15 to October 15 annually. The points of diversion are in SENESE Section 12, Township 30N, Range 22W, Flathead County, Montana. The place of use is in the NESE Section 12, Township 30N, Range 22W, Flathead County, Montana. The points of diversion are in the Upper Flathead River Basin (76LJ), in an area that is not subject to water right basin closures or controlled groundwater area restrictions.

The DNRC shall issue a water use permit if the applicant proves the criteria in 85-2-311 MCA are met.

6. Agencies consulted during preparation of the Environmental Assessment:

- U.S. Fish and Wildlife Service (USFWS): National Wetlands Inventory Wetlands Mapper
- Montana Natural Heritage Program: Endangered, Threatened Species, and Species of Special Concern
- Montana Department of Fish Wildlife & Parks (DFWP): Dewatered Stream Information
- Montana Department of Environmental Quality (MDEQ): Clean Water Act Information Center
- U.S. Natural Resource Conservation Service (NRCS): Web Soil Survey

Part II. Environmental Review

1. Environmental Impact Checklist:

PHYSICAL ENVIRONMENT

WATER QUANTITY, QUALITY AND DISTRIBUTION

Water quantity **-** *Assess whether the source of supply is identified as a chronically or periodically dewatered stream by DFWP. Assess whether the proposed use will worsen the already dewatered condition.*

The Applicant plans to divert water from the Flathead Deep Aquifer. The groundwater levels in the Deep Aquifer are effectively controlled by the stage of the Flathead River and Flathead Lake due to these sources being hydraulically connected. Additionally, Whitefish Lake was identified as being hydraulically connected to the source aquifer based on the location of the production wells. Neither Whitefish Lake, nor the mainstem of the Flathead River/Lake are included on the DFWP list of chronically or periodically dewatered streams.

Determination: No significant impact.

Water quality **-** *Assess whether the stream is listed as water quality impaired or threatened by DEQ, and whether the proposed project will affect water quality.*

According to the MDEQ Clean Water Act Information Center's 2018 Water Quality Information, the Flathead River has not been assessed for Beneficial Use Support. Flathead Lake is listed as "Not Fully Supporting" for aquatic life due to Mercury (no TMDL completed), Total Nitrogen (TMDL completed), Total Phosphorus (TMDL completed), and Polychlorinated Biphenyls (no TMDL completed). The Flathead River's Water Quality Category is "3," meaning there is insufficient data to assess the use-support of any applicable beneficial use; no use-support determinations have been made. Flathead Lake's Water Quality Category is "5," meaning one or more applicable beneficial uses are impaired or threatened, and a TMDL is required to address the factors causing the impairment or threat. The beneficial uses for which Whitefish Lake has been assessed are: primary contact recreation, agriculture, and aquatic life. It is listed as "fully supporting" for these uses, although the aquatic life use is "threatened," with the probably causes being mercury and polychlorinated biphenyls. Whitefish lake has not been assessed for the drinking water beneficial use. The lake's Use Class is "A-1," meaning the waters are classified as suitable for drinking, culinary, and food processing purposes after conventional treatment for removal of naturally present impurities. The Water Quality Category is "5," meaning the lake's waters have one or more beneficial use impaired or threatened, and a total maximum daily load (TMDL) plan is required to address the factors causing the impairment or threat. The proposed project will not affect water quality of Whitefish Lake, the Flathead River, or Flathead Lake.

Determination: No significant impact.

Groundwater **-** *Assess if the proposed project impacts ground water quality or supply.*
If this is a groundwater appropriation, assess if it could impact adjacent surface water flows.

The Applicant will divert groundwater from the aquifer at a rate of approximately 43.5 GPM. The wells are completed to 290 and 314 feet below ground surface. A Department analysis of Applicant supplied data from two aquifer pumping tests concluded that there is a sufficient supply of groundwater in the source aquifer to satisfy the proposed appropriation.

The aquifer is hydraulically connected to Whitefish Lake, the Flathead River, and Flathead Lake. The Department calculated that a constant year-round depletion to the listed surface water sources of 6.2 GPM will result from the proposed appropriation. A physical and legal availability analysis, as well as an adverse effect analysis of these sources was performed, and the Department concluded that surface water quality and supply would not be adversely affected by the proposed appropriation.

Determination: No significant impact

DIVERSION WORKS - *Assess whether the means of diversion, construction and operation of the appropriation works of the proposed project will impact any of the following: channel impacts, flow modifications, barriers, riparian areas, dams, well construction.*

The Applicant proposes to pump water from two wells, one equipped with a Goulds 13GS15 1.5-hp submersible pump, and the other with a Goulds 25GS30 3.0-hp submersible pump, at a rate of 43.5 GPM. The wells are completed to 290 and 314 feet below ground surface. The system is controlled by an automated system based on resident demand and system pressure. Based on the calculated total dynamic head and pump curves associated with the pumps, the system is capable of producing and distributing the requested flow rate and volume. The system is controlled in a manner so as not to exceed the permitted flow rate.

Since this is a groundwater appropriation, there will be no channel impacts, flow modifications, barriers, dams, or riparian impacts to the nearby surface waters.

Determination: No significant impact.

UNIQUE, ENDANGERED, FRAGILE OR LIMITED ENVIRONMENTAL RESOURCES

Endangered and threatened species **-** *Assess whether the proposed project will impact any threatened or endangered fish, wildlife, plants or aquatic species or any "species of special concern," or create a barrier to the migration or movement of fish or wildlife. For groundwater, assess whether the proposed project, including impacts on adjacent surface flows, would impact any threatened or endangered species or "species of special concern."*

The Montana Natural Heritage Program website was reviewed to determine if there are any threatened or endangered fish, wildlife, plants, aquatic species, or any "species of special concern" in Township 30N, Range 22W that could be impacted by the proposed project. 14 animal and nine plant species of concern (Tables 1 and 2, respectively) were identified within the township and range where the project is located. Of these species, the Grizzly Bear (*Ursus arctos*) and the Bull Trout (*Salvelinus confluentus*) are listed as threatened by the USFWS. An adequate quantity of water will still exist in the surface water source to maintain existing populations of Bull Trout, should they exist there currently. It is not anticipated that any species of concern will be impacted by the proposed project.

Table 1. Animal Species of Concern

Hoary Bat (Lasiurus cinereus)	*Little Brown Myotis (Myotis lucifugus)*	*Fisher (Pekania pennanti)*	*Grizzly Bear (Ursus arctos)*	*Northern Goshawk (Accipiter gentilis)*
Evening Grosbeak (Coccothraustes vespertinus)	*Pileated Woodpecker (Dryocopus pileatus)*	*Common Loon (Gavia immer)*	*Cassin's Finch (Haemorhous cassinii)*	*Varied Thrush (Ixoreus naevius)*
Northern Alligator Lizard (Elgaria coerulea)	*Westslope Cutthroat Trout (Oncorhynchus clarkii lewisi)*	*Bull Trout (Salvelinus confluentus)*	*Subarctic Bluet (Coenagrion interrogatum)*	

Table 2. Plant Species of Concern				
Beck Water-marigold (Bidens beckii)	*Watershield (Brasenia schreberi)*	*Pygmy Water-lily (Nymphaea leibergii)*	*Panic Grass (Dichanthelium acuminatum)*	*Slender Cottongrass (Eriophorum gracile)*
Water Bulrush (Schoenoplectus subterminalis)	*Sprangletop (Scolochloa festucacea)*	*Hamatocaulis Moss (Hamatocaulis vernicosus)*	*Meesia Moss (Meesia triquetra)*	

Determination: No significant impact.

Wetlands **-** *Consult and assess whether the apparent wetland is a functional wetland (according to COE definitions), and whether the wetland resource would be impacted.*

Determination: N/A, project does not involve wetlands or critical riparian habitats.

Ponds **-** *For ponds, consult and assess whether existing wildlife, waterfowl, or fisheries resources would be impacted.*

Determination: N/A, project does not involve ponds.

GEOLOGY/SOIL QUALITY, STABILITY AND MOISTURE **-** *Assess whether there will be degradation of soil quality, alteration of soil stability, or moisture content. Assess whether the soils are heavy in salts that could cause saline seep.*

It is not anticipated that the proposed irrigation of approximately 6.2 acres of lawn and garden will have a negative impact on the soil quality, stability, or moisture content. The soils in the project area are listed below in Table 3. Soils within the place of use are characterized as non-saline to very slightly saline and are therefore not likely to cause saline seep.

Table 3: Soils	
Whitefish silt loam, 0 to 3 percent slopes	Well drained; Nonsaline to very slightly saline
Whitefish gravelly silt loam, 0 to 7 percent slopes	Well drained; Nonsaline to very slightly saline
Whitefish cobbly silt loam, 7 to 12 percent slopes	Well drained; Nonsaline to very slightly saline
Whitefish cobbly silt loam, 12 to 20 percent slopes	Well drained; Nonsaline to very slightly saline
McCaffery loamy fine sand, 7 to 12 percent slopes	Excessively drained

Determination: No significant impact.

VEGETATION COVER, QUANTITY AND QUALITY/NOXIOUS WEEDS - *Assess impacts to existing vegetative cover. Assess whether the proposed project would result in the establishment or spread of noxious weeds.*

It is not anticipated that issuance of a water use permit will contribute to the establishment or spread of noxious weeds in the project area. Noxious weed prevention and control will be the responsibility of the landowners and must conform to local regulations.
Determination: No significant impact.

AIR QUALITY - *Assess whether there will be a deterioration of air quality or adverse effects on vegetation due to increased air pollutants.*

There will be no impact to air quality associated with issuance of the proposed permit for beneficial use of surface water.

Determination: No significant impact.

HISTORICAL AND ARCHEOLOGICAL SITES - *Assess whether there will be degradation of unique archeological or historical sites in the vicinity of the proposed project if it is on State or Federal Lands. If it is not on State or Federal Lands simply state NA-project not located on State or Federal Lands.*

Determination: N/A, project not located on State or Federal Lands.

DEMANDS ON ENVIRONMENTAL RESOURCES OF LAND, WATER, AND ENERGY - *Assess any other impacts on environmental resources of land, water, and energy not already addressed.*

All impacts to land, water, and energy have been identified and no further impacts are anticipated.

Determination: No significant impact.

HUMAN ENVIRONMENT

LOCALLY ADOPTED ENVIRONMENTAL PLANS AND GOALS - *Assess whether the proposed project is inconsistent with any locally adopted environmental plans and goals.*

The project is consistent with planned land uses.

Determination: No significant impact.

ACCESS TO AND QUALITY OF RECREATIONAL AND WILDERNESS ACTIVITIES - *Assess whether the proposed project will impact access to or the quality of recreational and wilderness activities.*

The proposed project will not inhibit, alter, or impair access to present recreational opportunities in the area. The project is not expected to create any significant pollution, noise, or traffic

congestion in the area that may alter the quality of recreational opportunities. The proposed place of use and diversion do not exist on land designated as wilderness.

Determination: No significant impact.

HUMAN HEALTH - *Assess whether the proposed project impacts human health.*

There will be no significant negative impact on human health from this proposed use.

Determination: No significant impact.

PRIVATE PROPERTY - *Assess whether there are any government regulatory impacts on private property rights.*
*Yes___ No_**X**_ If yes, analyze any alternatives considered that could reduce, minimize, or eliminate the regulation of private property rights*.

Determination: No impact.

OTHER HUMAN ENVIRONMENTAL ISSUES - *For routine actions of limited environmental impact, the following may be addressed in a checklist fashion.*

Impacts on:

(a) Cultural uniqueness and diversity? None identified.

(*b) Local and state tax base and tax revenues?* None identified.

(c) Existing land uses? None identified.

(*d) Quantity and distribution of employment?* None identified.

(e) Distribution and density of population and housing? None identified.

(f) Demands for government services? None identified.

(g) Industrial and commercial activity? None identified.

(h) Utilities? None identified.

(i) Transportation? None identified.

(j) Safety? None identified.

(k) Other appropriate social and economic circumstances? None identified.

2. ***Secondary and cumulative impacts on the physical environment and human population:***

Secondary Impacts: None identified.

Cumulative Impacts: None identified.

3. ***Describe any mitigation/stipulation measures:***

None.

4. ***Description and analysis of reasonable alternatives to the proposed action, including the no action alternative, if an alternative is reasonably available and prudent to consider:***

The only alternative to the proposed action would be the no action alternative. The no action alternative would not authorize the diversion of water from the proposed wells.

Part III. Conclusion

1. Preferred Alternative

Issue a water use permit if the Applicant proves the criteria in 85-2-311 MCA are met.

2. Comments and Responses

None.

3. Finding:

*Yes___ No_**X**_ Based on the significance criteria evaluated in this EA, is an EIS required?*

If an EIS is not required, explain why the EA is the appropriate level of analysis for this proposed action:

No significant impacts related to the proposed project have been identified.

Name of person(s) responsible for preparation of EA:

Name: Travis Wilson
Title: Water Resource Specialist
Date: April 27, 2020